

# ABSTRACT

A method for producing <sup>[To produce]</sup> a silicon torsion spring <sup>[by means of which]</sup> capable, for example, of reading the rotation rate in a microstructured torsion spring/mass system. The system that is produced <sup>[can be read, the aim being to achieve]</sup> achieves a low torsional stiffness compared to a relatively high transverse stiffness in the lateral and vertical directions. The <sup>[invention]</sup> method proceeds from a wafer or wafer composite and, <sup>[after]</sup> upon suitable mask coverage, a spring with a V-shaped cross section is formed by anisotropic wet-chemical etching which preferably extends over the entire wafer thickness and is laterally delimited only by <sup>[surfaces is produced by anisotropic wet-chemical etching]</sup> [111] planes. Two of the wafers or wafer composites <sup>[which have been prestructured]</sup> prepared in this way, are rotated through 180° and joined to one another oriented <sup>[and]</sup> mirror-symmetrically with respect to one another, so that overall the desired X-shaped cross section is formed.

[A particular advantage of the invention is that the production technology of the laterally and vertically rigid twist spring is relatively simple.]